Internal use only	
Reference Number	/

Nomination to change the conservation class of a species under the Queensland *Nature Conservation Act 1992*

Complete this form to nominate a species for assessment of its conservation class under the *Nature Conservation Act 1992* (NC Act). Any subspecies, variety, race, hybrid, mutation or geographically separate population (hereafter 'species') can be nominated. The appropriate conservation class will be selected during an expert assessment process and, following approval processes, reflected in the next suitable update of the NC Act.

A species may be nominated to an appropriate conservation class from any other conservation class. The nomination assessment process may result in a species being recommended to the conservation class as nominated, or to a class better supported by scientific data and expert opinion. Assessments and nominations will be shared with the Commonwealth and other Australian jurisdictions within the species' distribution.

All plant and vertebrate species native to Queensland are protected under the NC Act and classified as Least Concern unless found eligible for a different conservation class. Invertebrate species are only protected under the NC Act if specifically named under a conservation class. A species can be nominated for listing or reassignment from any conservation class to:

A national threat category:

- Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CR), Endangered (E) or Vulnerable (V) if it meets at least one of the International Union for Conservation of Nature (IUCN) criteria for species at risk of extinction

A state threat class:

- Near Threatened (NT) if the species meets at least one of the criteria for species at risk of becoming threatened in the future based on concerns relating to population dynamics or threats
- Least Concern (LC) if evidence is provided that no criteria for a higher class have been met, and the species won't become eligible for a higher class in the foreseeable future should conservation actions cease due to reclassification.

The assessment of species against the national threat categories reflected in this form complies with the Memorandum of Understanding for the Common Assessment Method (CAM) between the Commonwealth and Australian states and territories. The objective of the CAM is for partner jurisdictions to adopt each other's national assessments as appropriate. Information about the CAM can be found at https://www.qld.gov.au/environment/plants-animals/wildlife-permits/common-assessment.

To nominate a species with an Australian distribution that is not restricted to Queensland, use the nomination form and guidelines at http://www.environment.gov.au/biodiversity/threatened/nominations/forms-and-guidelines and email the completed form to the Australian Government at EPBC.nominations@environment.gov.au.

Important notes for completing this form

- **To enable a species eligibility for listing to be assessed against the criteria, please complete the form as comprehensively as possible by providing a response in each box with an orange border.**
- Completing a nomination is a demanding task. Nominators are encouraged to seek advice from experts where appropriate to assist in completing the nomination form.
- The opinion of scientific experts may be cited as personal communication with their approval. Please provide the experts names, qualifications and contact details (including employment in a government agency if relevant) in the reference list at the end of the form.
- Include any available information and analysis or state when the required information is not available.
- Figures, tables and maps can be included at the end of the form or provided as separate electronic files or hardcopy documents (referenced as appendices or attachments in your nomination).
- Cross-reference relevant areas of the nomination form where needed.
- **Reference all information sources**, both in the text and in a reference list at the end of the form.
- Identify confidential material and the reason it is sensitive. With the exception of information you have identified as confidential, nominations under the CAM process may be made available by a state, territory or the Commonwealth Government to experts or the public for comment.
- If the species is listed nationally, the Australian Government will publish nomination information on its website. Your details as nominator will not be released and will be treated as confidential information.
- Guidance on interpreting this nomination form can be found in the "*Guidelines for Assessing the Conservation Status of Native Species*" developed by the Australian Government under the EPBC Act here http://www.environment.gov.au/biodiversity/threatened/nominations/forms-and-guidelines. Although not fully relevant under the NC Act, the guidelines provide assistance on several aspects of this form. Please email SpeciesTechnical.Committee@des.qld.gov for further advice on completing the nomination.

Further information on selected questions

INTRODUCTION

Species native to Queensland may be nominated to any conservation class under the NC Act, including to transfer between classes. If the taxon at risk is a population or hybrid, or if you wish to know if it has been unsuccessfully nominated under the NC Act in the past, please contact the Queensland Department of Environment and Science for advice at SpeciesTechnical.Committee@des.qld.gov.au.

To search for a species' conservation class under the NC Act please refer to the *Nature Conservation (Wildlife) Regulation 2006*: https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2006-0206.

You can also search the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) list of threatened species in the Species Profile and Threats Database (SPRAT) at www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.

The full lists of threatened fauna and flora under the EPBC Act are available here:
www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna
www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora.

You can find a list of nominated species that did not meet the assessment criteria for listing under the EPBC Act at www.environment.gov.au/biodiversity/threatened/unsuccessful-species.html.

A nomination to transfer a species from a threatened conservation class to Least Concern or Near Threatened under the NC Act need not address sections marked with an asterisk (*).

SCIENTIFIC AND COMMON NAMES OF NOMINATED SPECIES

- Provide the currently accepted scientific and common name(s) for the species (including Indigenous names, where known). Note any other scientific names that have been used recently such as superseded names.

TAXONOMY

- Record the species' authority and the taxonomic group to which it belongs (Family name is sufficient for plants; both Order and Family name are required for fauna).
- Is the species known to hybridise with other species? Describe any cross-breeding with other species in the wild, indicating where and how frequently this occurs.

DISTRIBUTION

- In accordance with the CAM, the Commonwealth is the default assessment 'lead' for species occurring across multiple Australian jurisdictions, and the nomination will be subject to the prioritisation and assessment process under the EPBC Act. Download the nomination form here http://www.environment.gov.au/system/files/pages/d72dfd1a-f0d8-4699-8d43-5d95bbb02428/files/nomination-form-species.pdf, and email it to epbc.nominations@environment.gov.au. Further information on the EPBC Act nomination, prioritisation and assessment process is available at http://www.environment.gov.au/biodiversity/threatened/nominations.
  Note: where the relevant jurisdictions agree, a State or Territory (rather than the Commonwealth) may take the lead on assessing a cross-jurisdictional species, in consultation with the Commonwealth and other jurisdictions.
- A nomination for a species endemic to Queensland or with its only Australian distribution in Queensland, for example a species only occurring in Queensland and Papua New Guinea, can be assessed under the NC Act. Please submit your completed nomination form to SpeciesTechnical.Committee@des.qld.gov.au.
- Describe the species' current geographic distribution within Queensland, and where applicable, outside Australia.
- Provide a map, if available, indicating latitude, longitude, map datum and location names
  - Indicate the percentage of the global population that occurs in Queensland, and what is its significance?
  - Is the Queensland population distinct, geographically isolated, or does part or all of the population migrate into/out of the Queensland jurisdiction?
  - Explain the relationship between the Queensland population and the global population.
  - Do global threats affect the Queensland population?
- Give locations of other existing or proposed populations such as populations that are captive, propagated, naturalised outside their range, recently re-introduced to the wild, and planned to be re-introduced. Note if these sites have been identified in recovery plans. Provide latitude, longitude, map datum and location name, where available, in an attached table.
- Give details of fauna species' home ranges/territories including any relevant daily and seasonal or irregular movement patterns, such as arrival/departure dates if migratory.
- Does the species occur within an EPBC Act listed ecological community? You will find a list of EPBC Act listed ecological communities here: www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl.

BIOLOGY/ECOLOGY

- **Life cycle**: Provide detail on the age at sexual maturity, average life expectancy, natural mortality rates, and generation length
  - "*Generation length*" is defined as the average age of parents of the current cohort (i.e. newborn individuals in the population), and reflects the turnover rate of breeding individuals in a population. Generation length is greater than the age at first breeding and less than the age of the oldest breeding individual, except in species that breed only once. Where generation length varies under threat, use the more natural pre-disturbance generation length. It is often calculated as = (longevity + age at maturity)/2. Provide details of the method(s) used to calculate the generation length.
- **Reproduction**: Provide detail on the reproductive requirements of this species.
  - **Flora**: When does the species flower and set fruit? What conditions are needed for this? What are the pollinating and seed dispersal mechanisms? If the species reproduces vegetatively, describe when, how and what conditions are needed. Does the species require a disturbance regime (e.g. fire, cleared ground) to reproduce?
  - **Fauna**: provide an overview of the species' breeding system and breeding success, including: when it breeds; what conditions are needed for breeding; whether there are any breeding behaviours that may make it vulnerable to a threatening process.
- **Habitat**
  - Provide information on aspect, topography, substrate, climate, forest type, associated species, sympatric species and anything else that is relevant to the species' habitat.
  - Explain how habitats are used (e.g. breeding, feeding, roosting, dispersing, basking, etc.).
  - Does the species use refuge habitat (e.g. in times of fire, drought or flood)? Describe this habitat.
- **Feeding (fauna):**

- Summarise the feeding behaviours, diet, and the timing/seasonality associated with these. Include any behaviour that may make the species vulnerable to a threatening process.

- **Movement (fauna)**: provide information on daily and seasonal movement patterns.

IDENTIFICATION OF KNOWN THREATS AND IMPACTS OF THE THREATS

- For each threat, describe:
  a. whether it is actual or potential
  b. how and where it impacts on this species
  c. what its effect has been so far (is the threat known or suspected?, does it only affect certain populations?) Present supporting information/research).
  d. its expected effect in the future (is the threat known or suspected?, does it only affect certain populations?, is there supporting research/information?) Present supporting information/research).
  e. its relative importance or the magnitude of the impact on the species.

- Identify and explain any additional biological characteristics particular to the species that are threatening to its survival (e.g. low genetic diversity).
- If subject to natural catastrophic events, i.e. events with a low predictability that are likely to severely affect the species, identify the type of event, its likely impact, and its likelihood of occurrence (e.g. a drought/cyclone in the area every 100 years). If **climate change** is an important threat to the species, provide referenced information on how climate change might significantly increase the species' vulnerability to extinction. Please refer to the *Guidelines for Assessing the Conservation Status of Native Species*: http://www.environment.gov.au/system/files/pages/d72dfd1a-f0d8-4699-8d43-5d95bbb02428/files/tssc-guidelines-assessing-species-2018.pdf.

*CONSERVATION ADVICE: THREAT ABATEMENT AND RECOVERY ACTIONS

- Describe how threats are or could be abated and/or species recovered.
- Identify who is undertaking these activities and how successful the activities have been to date.
- Describe any mitigation measures or approaches that have been developed specifically for the species at identified locations. Identify who is undertaking these activities and how successful the activities have been to date.
- For species nominated as Extinct in the Wild, provide location details for any naturalised or captive populations and the level of human intervention required to sustain the species.

IMPACT OF TRANSFERRING A THREATENED SPECIES TO NEAR THREATENED OR LEAST CONCERN

- Only complete this section if you are nominating a species for transfer to Near Threatened or Least Concern from a class of nationally threatened wildlife (Extinct, Extinct in the Wild, Critically Endangered, Endangered or Vulnerable).
- Provide details of the expected impact on the species if conservation actions ceased following its transfer out of a threatened wildlife class.

CURRENT LISTING CLASS AND CATEGORY

- Note: The term 'class' under the NC Act is equivalent to the term 'category' under the EPBC Act.
- Select the species' current class under the NC Act where applicable. Search the species' NC Act class here: https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2006-0206.
- Select the species' current category under the EPBC Act where applicable. Search the Australian Government SPRAT Database here: www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.

NOMINATED LISTING CLASS

- **After completing the section 'Eligibility against the criteria'** sufficient evidence should be available to determine your response to this section. Please select the NC Act class to which the species is being nominated.

REASONS FOR A NOMINATION TO TRANSFER TO ANOTHER CLASS

Please describe why the species is being nominated to transfer to another conservation class in Queensland:

- *Genuine.* The change in class is the result of a genuine status change that has taken place since the previous assessment. For example, the change is due to an increase in the rate of decline, a decrease in population or range size or habitat, or declines in these for the first time (owing to increasing/new threats).
- *Knowledge.* The change in class is the result of new knowledge, e.g. owing to new or newly synthesised information about the status of the taxon (e.g. better estimates for population size, range size or rate of decline).
- *Taxonomy.* The change in class is due to a taxonomic change adopted during the period since the previous assessment. Such changes include:

- *newly split* (the taxon is newly elevated to species level)
- *newly described* (the taxon is newly described as a species)
- *newly lumped* (the taxon is recognised following lumping of two previously recognised taxa)
- *no longer valid/recognised* (either the taxon is no longer valid, e.g. because it is now considered to be a hybrid, variant form or subspecies of another species, or the previously recognised taxon differs from a currently recognised one as a result of a split or lump).

- *Mistake*. The previous class was applied in error.
- *Other.* The change in class is the result of other reasons not easily covered by the above, and/or requires further explanation. Examples include change in assessor's attitude to risk and uncertainty.

INITIAL LISTING

- The reasons for the initial NC Act listing may be available in the original nomination for the species. This can be obtained by emailing the Department of Environment and Science's Species Technical Committee at SpeciesTechnical.Committee@des.qld.gov.au.
- The reasons for EPBC Act listing may also be available. Search for the species' EPBC Act listing and conservation advice for threatened species in the SPRAT Database www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.
- If there is insufficient information to provide details of the reasons for the original listing, please state this.

CHANGES IN SITUATION LEADING TO THE NOMINATION TO TRANSFER TO ANOTHER CLASS

- Describe the changes that have occurred or are likely to occur to the species' population, range or habitat that influence the nomination to change the species' conservation class.

ELIGIBILITY AGAINST CRITERIA

- For a species to be eligible as Near Threatened or a class of threatened wildlife, it must be assessed as meeting **at least one** of the five 'criteria' on this nomination form. For example, for a species listed as Vulnerable to be transferred to the Endangered class, it must meet the threshold/s for at least one of the five criteria for Endangered.
- A species does not have to be found eligible for the same class under all criteria; however, all questions must be answered. If information is not available for a particular criterion, a statement to this effect is required.
- If you hold unpublished data that support assessment of a criterion, you must provide them with the nomination.
- Standards for assessing a species' conservation status in Australia align with the IUCN Red List Criteria and Categories. Please refer to the IUCN guidelines for explanations of how to address the criteria http://s3.amazonaws.com/iucnredlist-newcms/staging/public/attachments/3151/redlistguidelines.pdf.

DECLARATION

In signing this nomination form, you agree to grant the Queensland Government (as represented by the Department of Environment and Science) a perpetual, non-exclusive, worldwide, royalty-free licence to use, reproduce, publish, communicate and distribute information that you have provided in the nomination form that is not referenced to other sources with the exception of information specifically identified by you as confidential, in websites and publications and to promote those websites and publications in any medium.

As nominator, your details are automatically subject to the provisions of the *Privacy Act 1988* and will not be divulged to third parties. The Commonwealth, State and Territory governments have agreed to collaborate on national threatened species assessments using the CAM. As part of this collaboration, your nomination, including your details as nominator, may be provided to other government jurisdictions, who will also observe these privacy and confidentiality arrangements.

If you subsequently agree to be cited as the author of specific, cited information, you will be acknowledged in all publications and websites in which that information appears, in a manner consistent with the *Style Manual for Authors, Editors and Printers* (latest edition).

Nomination form to change the conservation class of a species in Queensland

Details of the nominated species

SCIENTIFIC NAME OF SPECIES (SUBSPECIES, VARIETY, ETC. TO BE SPECIFIED WHERE RELEVANT)

Eucalyptus broviniensis Bean.

COMMON NAME(S)

Click or tap here to enter text.

TAXONOMY

Provide any relevant detail on the species' taxonomy (e.g. authors of taxon or naming authority, year and reference; synonyms; Family and Order).

Bean, A. (2001). *Eucalyptus broviniensis* (Myrtaceae), a new critically endangered species from south-eastern Queensland. *Austrobaileya* ***6***(1), 117-119.

Myrtales: Myrtaceae

*CONVENTIONAL ACCEPTANCE OF TAXONOMY

Is the species' taxonomy conventionally accepted?

☒Yes
☐No

If the species is not conventionally accepted, please provide the following information:

- a taxonomic description of the species in a form suitable for publication in conventional scientific literature

OR

- evidence that a scientific institution has a specimen of the species, and a written statement signed by a person who is a taxonomist and has relevant expertise (has worked with, or is a published author on, the group of species nominated) that the species is considered to be a new species.

Click or tap here to enter text.

*DESCRIPTION

Provide a description of the species. Include where relevant its distinguishing features, size and social structure. How distinct is this species in its appearance from other species? How likely is it to be misidentified?

Tree to 10 m with a lignotuber and dull, granular, mottled light-dark grey bark (Bean 2001). Juvenile leaves are alternate, ovate and petiolate, 10 cm long and 5 cm wide. Adult leaves are 10-14.5 cm long and 2.5-4.5 cm long, lanceolate, alternate, concolorous, dull and with sparse, small oil glands, and petioles 20-30 mm long. Inflorescences axillary, 7-flowered with thick peduncles 8-22 mm long. Buds are ovoid, 6-9 mm long and 4.5-6.5 mm wide, sessile or on pedicels <2 mm long. Fruits are obconical, 5.5-8.5 mm long and 7-11 mm wide with 3-4 exserted valves and ellipsoidal-cuboid seeds.

Eucalyptus broviniensis is most similar to *E. hallii. Eucalyptus broviniensis* has wider adult leaves, less-dense oil glands, longer peduncles and wider fruit (Bean 2001).

DISTRIBUTION

Provide a succinct overview of the species' known or estimated current and past distribution, including international/national distribution. Provide a map if available.

Is the species' habitat protected within the reserve system (e.g. national parks, Indigenous Protected Areas, or other conservation estates, private land covenants, etc.)? If so, which populations? Which reserves are actively managed for this species? To your knowledge, which reserves are being actively managed in way that provides incidental benefits for this species? Give details.

Eucalyptus broviniensis is known from a very narrow range in the Mundubbera area within the Brigalow Belt South bioregion in Queensland (Department of the Environment 2012). The Extent of occurrence (EOO) is calculated as 23.3 km^2 using expert-verified herbarium records and the minimum convex polygon method, and the Area of occupancy is calculated as 16 km^2 using the 2 km x 2 km grid cell method (Figure 1; IUCN 2019; Queensland Herbarium 2020).

Eucalyptus broviniensis was first collected in 1997 from Allies Creek State Forest (formerly Brovinia State Forest). It was known from this single subpopulation of 20 individuals when described by Bean (2001). Subsequent collections from two additional sites at Beeron National Park were made in 2014 and 2015, where the species was noted to be locally common (Queensland Herbarium 2020). The species is known to occur in the centre and at the south-eastern border of Beeron NP, on the adjacent private property, Manar (P. Young pers. comm. 2019). There is a considerable area of unsurveyed habitat in Beeron NP, between the known records, indicating potential for additional sites of occurrence to be found.

Eucalyptus broviniensis occurs at two discrete sites approximately 6 km apart (Allies Creek SF and Beeron NP – extending onto adjacent private property) that are considered separate subpopulations in this analysis. Genetic flow between the two subpopulations seems probable given habitat connectivity. However, the species appears to grow in different life-forms at each site; as small, multi-stemmed trees at Allies Creek SF (western subpopulation) and tall, single-stemmed trees at Beeron NP (eastern subpopulation) (P. Young, pers. comm. 2019). The habitat between the sites is also different, thus supporting the notion that there are two separate subpopulations for this analysis.

Eucalyptus broviniensis occurs within conservation estate (Beeron National Park) and on land used for forestry (Allies Creek State Forest). Beeron National Park was gazetted in 2009 and was formerly known as Beeron Holding or Rocky Paddock (DNPRSR 2013). *Eucalyptus broviniensis* is not listed as a species of conservation significance in the management statement for this park (DNPRSR 2013). Collection records of the species only occur in vegetation mapped as 'remnant' under the *Vegetation Management Act 1999* (VMA) (Figure 3). However, the species is known from cleared habitat on adjacent freehold land (P. Young, pers. comm. 2020).

The total population estimate for *E. broviniensis* is not precisely known. However, there are approximately 20 mature individuals in Allies Creek State Forest and >1000 mature individuals in Beeron National Park and adjacent freehold land, occurring at densities of ~20 trees per hectare (P. Young, pers. comm., Nov. 2018). Therefore, the total population is estimated here as 1000-3000 mature individuals.

Figure 1. The extent of occurrence (EOO) and area of occupancy (AOO) of *Eucalyptus broviniensis* are automatically calculated as 23.3 km^2 and 16 km^2, respectively. (Note the minimum number of grid cells has been used following IUCN 2019).

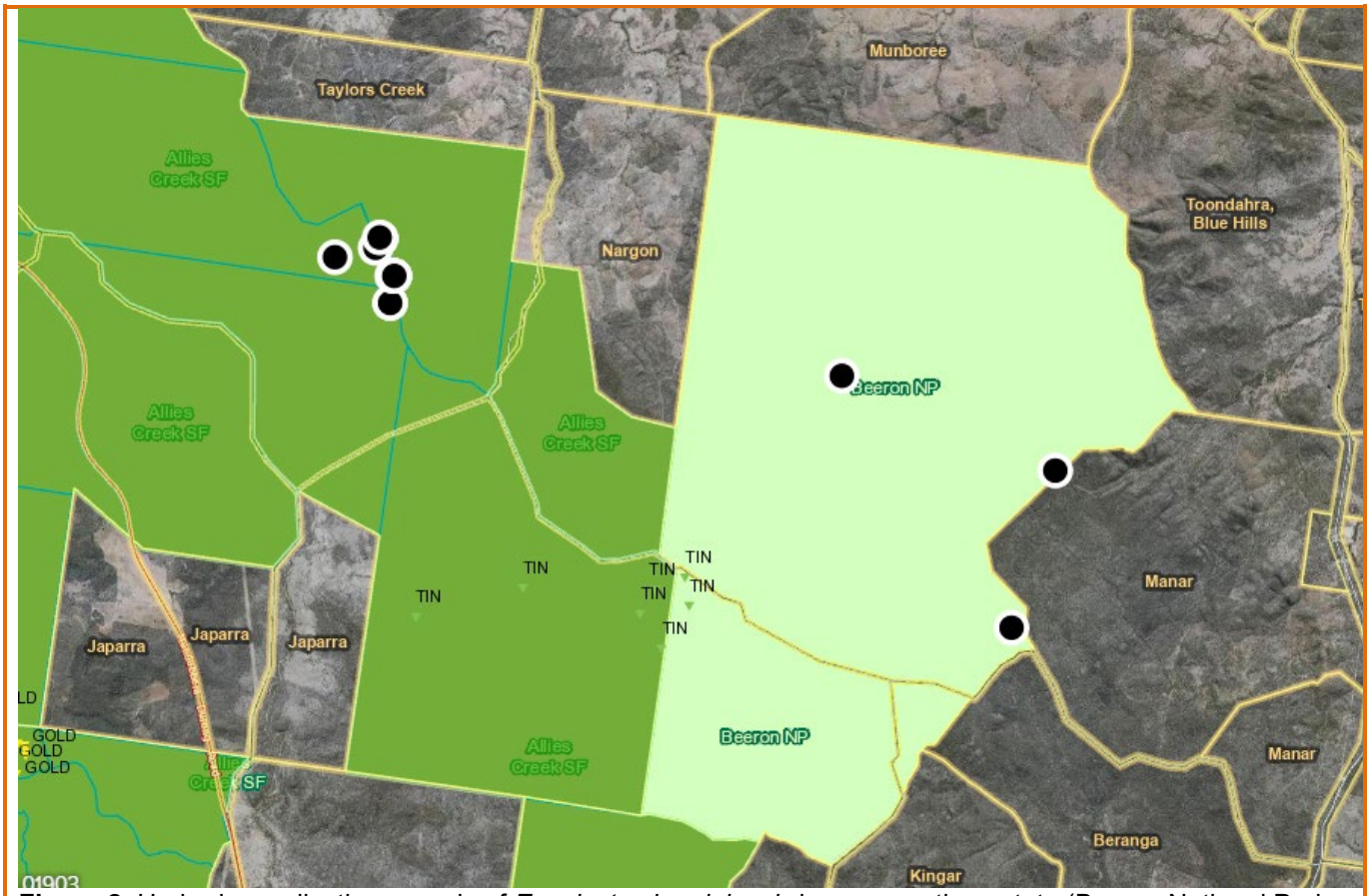


Figure 2. Herbarium collection records of *Eucalyptus broviniensis* in conservation estate (Beeron National Park, light green) and in Allies Creek State Forest (dark green). The species is also known to occur to the east of Beeron National Park on freehold tenure. There are mineral resources in the broad vicinity of the species (gold and tin), however there are no active mining leases or applications that coincide with the species' distribution.

Figure 3. *Eucalyptus broviniensis* occurs in vegetation mapped as 'remnant' (coloured) under the VMA. All records occur in uncleared vegetation, although the species is known to occur on the private property to the east of Beeron NP, in areas that have been cleared (white; P. Young, pers. comm. 2020). The western subpopulation occurs in regional ecosystems (REs) 11.7.4, 11.7.5, 11.7.6, 11.7.7 and 11.5.20 (Queensland Government 2020). The eastern subpopulation occurs in REs 11.7.4, 11.7.6, 11.10.4, 11.12.3 and 11.12.6 (Queensland Government 2020).

BIOLOGY/ECOLOGY

Provide a summary of biological and ecological information.

Include information on:

- life cycle including age at sexual maturity, life expectancy and natural mortality rates
- specific biological characteristics
- the species' habitat requirements
- for fauna: feeding behaviour and food preference and daily/seasonal movement patterns
- for flora: pollination and seed dispersal patterns

The two subpopulations of *E. broviniensis* occur in markedly different habitat types. At Allies Creek SF, the species grows in sandy soils on flats near escarpments and plateaus amongst heathy vegetation. Associated species at this subpopulation include *E. virens, Corymbia trachyphloia, Allocasuarina inophloia, Lysicarpus angustifolius, Platysace ericoides, Calytrix tetragona, Homoranthus* spp. and *Triodia* species. At Beeron National Park, *E. broviniensis* occurs in grey loams on flat terrain in mixed open woodland of *E. virens, E. fibrosa, E. exserta, E. cloeziana, Corymbia trachyphloia* and *Casuarina inophloia.*

The ecology of *E. broviniensis* is poorly-documented. The species grows as a small, multi-stemmed tree in the western (Allies Creek SF) subpopulation, but as a tall (16-18 m) single-stemmed tree at Beeron NP. These different growth forms may reflect differences in prevailing fire regimes. The species forms a lignotuber, from which it can re-sprout after fire (Bean 2001; P. Young, pers. comm. 2019).

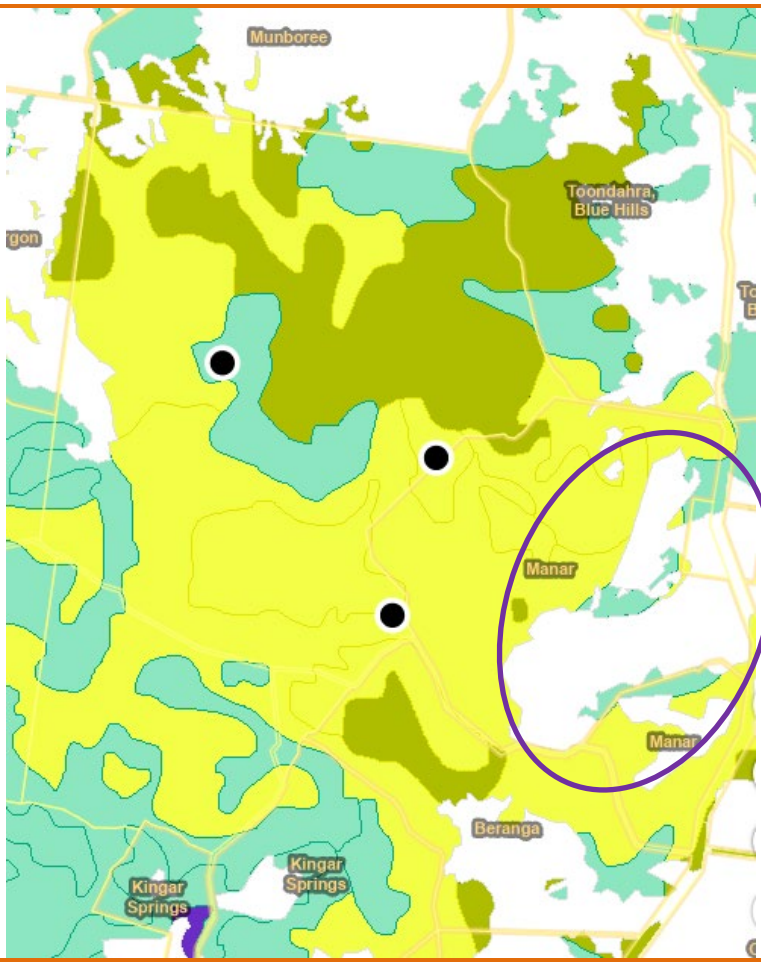
The generation length of *E. broviniensis* has been arbitrarily estimated at ~70 years (Fensham et al. 2020).

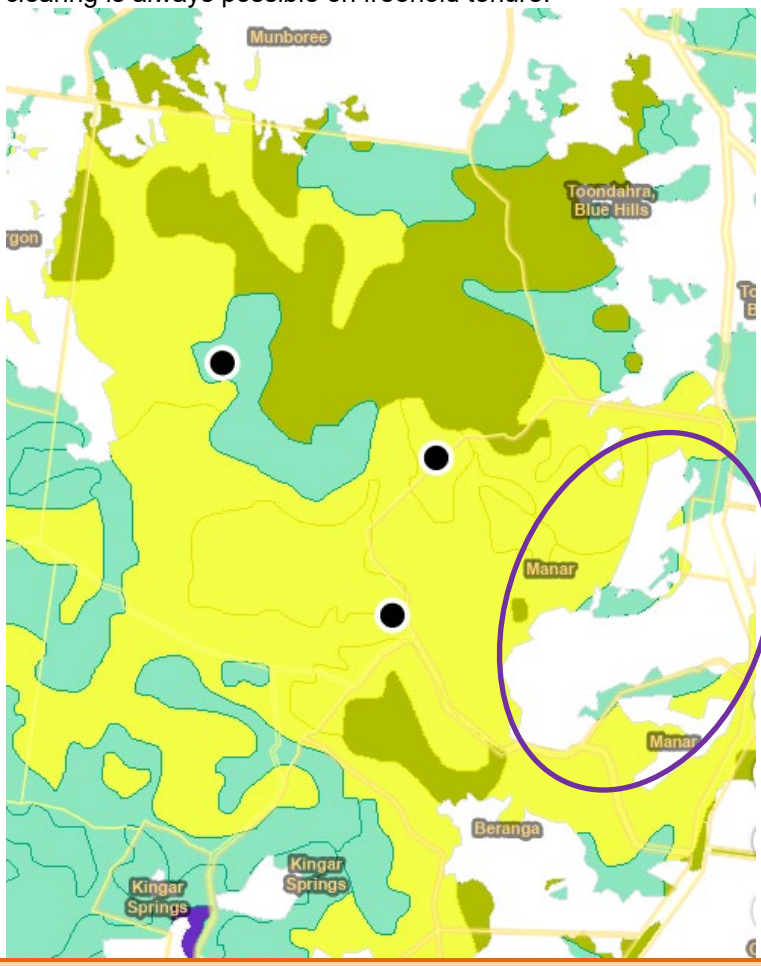
Threats

IDENTIFICATION OF KNOWN THREATS AND IMPACT OF THE THREATS

Identify any known threats to the species in the table below. Describe **past, current or future** threats, whether the threats are **actual or potential**, and the **type and level of impact** you believe each threat is having on the species.

Past threats	**Impact of threat**
Land clearing pre-VMA	Given the area of non-remnant vegetation surrounding the collection records of *E. broviniensis,* it is likely the species has undergone past decline due to land clearing that occurred before the *Vegetation Management Act 1999*.
Timber harvesting	Given the western subpopulation of *E. broviniensis* occurs in a state forest, it would have been impacted by timber harvesting practices in the past. Timber harvesting can cause direct losses of mature individuals, and also have indirect negative impacts by causing soil compaction, erosion and introducing edge effects. The precise impact of timber harvesting on the species is not known. Timber harvesting may have also occurred within the eastern subpopulation before Beeron National Park was gazetted in 2009.
Current threats	**Impact of threat**
Current land management activities (grazing)/ land-clearing post-VMA	*Eucalyptus broviniensis* collection records occur only within vegetation mapped as 'remnant' and therefore presumably uncleared land. However, the species is known to occur on a private property to the east of Beeron NP, where there is both remnant and non-remnant vegetation (see inset). Although remnant vegetation is afforded certain protections under the *Vegetation Management Act 1999*, clearing can still be approved under certain circumstances (i.e. high value agriculture) and clearing has recently occurred on this property in the habitat of *E. broviniensis* for pastoral enterprise (P. Young, pers. comm. 2019). Further, the threat of illegal clearing is always possible on freehold tenure.

	
Inappropriate fire regimes	Fire regimes have a relatively short return interval in Allies Creek SF and Beeron NP (M. Mathieson, pers. comm. 2019), which may have impacts on population demographics of *E. broviniensis,* specifically by limiting recruitment and causing dieback in mature individuals. Increased fire frequency is considered a threat to the subpopulation of *E. broviniensis* in Allies Creek SF where 'many dead stems' have been observed (Bean 2001). Subsequent observations indicate the population appears to be declining in health overall, probably due to too-frequent fire that is causing regular dieback in mature individuals while limiting the capacity of juvenile plants to mature (J. Halford, pers. comm. 2019). Heavy coppicing was recently observed in the subpopulation at Allies Creek SF approximately 1.5 years post-fire, indicating the species has a relatively robust capacity to survive intense fires when compared with the co-occurring *E. virens* (P. Young, pers. comm. 2019). The climate is projected to become hotter and drier with more extreme fire weather conditions (Dowdy *et al*. 2015; Hoffmann *et al*. 2019). Specifically, harsher fire weather is projected with *high confidence*, greater time spent in drought is projected with *medium confidence,* a substantial increase in the duration of warm spells including the temperature of hot days and the frequency of hot days is projected with *very high confidence* (Dowdy et al. 2019).
Timber harvesting/ accidental destruction	An entire subpopulation of *Eucalyptus broviniensis* occurs in Allies Creek SF, which is primarily managed for timber harvesting. Although *E. broviniensis* is unlikely to be a target species for timber harvesting, the species may be indirectly affected by timber harvesting activities. Timber harvesting can cause direct losses of mature individuals, and also have indirect negative impacts by causing soil compaction, erosion and introducing edge effects. It is also plausible that the species could be accidentally impacted by timber harvesting activities, with significant implications for the population distribution given only 20 trees occur here.
Future threats – actual	**Impact of threat**

Land-clearing post VMA	*Eucalyptus broviniensis* collection records occur only within vegetation mapped as 'remnant' and therefore presumably uncleared land. However, the species is known to occur on Manar property to the east of Beeron NP where there is both remnant and non-remnant vegetation (see inset). Although remnant vegetation is afforded certain protections under the *Vegetation Management Act 1999*, clearing can still be approved under certain circumstances (i.e. high value agriculture) and clearing has recently occurred on this property in the habitat of *E. broviniensis* for pastoral enterprise (P. Young, pers. comm. 2019). Further, the threat of illegal clearing is always possible on freehold tenure. 
Future threats – potential	**Impact of threat**
Small population – Stochastic events	Given the species has a small population size, it is be vulnerable to stochastic events. The western subpopulation (~20 mature individuals) is particularly vulnerable to stochastic events given its small size.
Climate change	The climate is projected to become hotter and drier with more extreme fire weather conditions (Dowdy *et al*. 2015; Hoffmann *et al*. 2019). Specifically, harsher fire weather is projected with *high confidence*, greater time spent in drought is projected with *medium confidence,* a substantial increase in the duration of warm spells including the temperature of hot days and the frequency of hot days is projected with *very high confidence* (Dowdy et al. 2019). The impact of this on the habitat of *E. brovinensis* is not specifically documented. However, an increase in the frequency and intensity of fire events could negatively impact the size of the population (see Inappropriate fire regimes Threat).

*CONSERVATION ADVICE: THREAT ABATEMENT AND RECOVERY ACTIONS

Give an overview of recovery and threat abatement/mitigation actions that are underway, have been formally proposed or that you would like to recommend. Address all threats listed or state threats that lack conservation advice.

Current threats	**Abatement or recovery action underway**

Current land management activities (grazing)/ land-clearing post VMA	The western subpopulation is partially protected in Beeron National Park. A large portion of the vegetation on surrounding properties where the species may occur (or is known to occur), is mapped as 'remnant' vegetation and thus afforded certain protections from clearing.
Inappropriate fire regimes	Fire regimes are identified as a management issue in Beeron National Park (DNPRSR 2013). Although ideal fire regimes have been identified for various ecosystems in the region, wildfires often escape from adjoining properties and implementing mosaic burning is hindered by the lack of fire infrastructure (i.e. firebreaks) and steep terrain within the park (DNPRSR 2013). There is no active management of fire regimes specific to *E. broviniensis* documented.
Timber harvesting	The population is partially protected in Beeron National Park. There is no published information available detailing specific management actions for the species within Allies Creek State Forest.
	Abatement or recovery action proposed
Current land management activities (grazing)/ land-clearing post VMA	More accurately ascertain the distribution of the species on freehold land adjacent to Beeron NP. Undertake extension activities to engage relevant landholders in the protection of the species. Strengthen vegetation protection legislation to reduce incentives to clear vegetation. Incorporate remnant vegetation surrounding Beeron NP into the national park. Incorporate the species into management plans for Allies Creek State Forest and Beeron National Park. Ensure contractors are aware of the species' occurrence when undertaking timber harvesting activities. Define a protection buffer around the individuals at Allies Creek State Forest to protect from direct and indirect impacts of timber harvesting.
Timber harvesting	Ensure all stakeholders operating in Allies Creek SF are aware of the distribution of the species to prevent accidental damage. Ensure no timber harvesting activities occur in the vicinity of the subpopulation of *E. broviniensis* in Allies Creek SF. Incorporate the species into management plans for Allies Creek State Forest and Beeron National Park. Ensure contractors are aware of the species' occurrence when undertaking timber harvesting activities. Define a protection buffer around the individuals at Allies Creek State Forest to protect from direct and indirect impacts of timber harvesting.
Inappropriate fire regimes	Undertake research to quantify the causal impact of fire on the demographics of the species at both Allies Creek SF and Beeron NP. Identify a suitable fire regime for this species and determine the viability of implementing this management strategy. Undertake management to reduce the frequency and intensity of wildfires within the distribution of the species. Monitor the impacts on the health of the population, including mature individuals and recruitment. Manage the interactions between climate change and increased fire frequency, but adapting fire management approaches as necessary (ecological burns to reduce fuel loads on a semi-regular basis). Undertake research to better understand the conservation biology (genetic diversity) and ecology (fire ecology, pollination, habitat requirements, germination requirements, recruitment rates) of the species to inform targeted conservation actions.
Future threats – actual	**Abatement or recovery action underway**
Land clearing	No recovery actions currently address this threat.
Future threats – actual	**Abatement or recovery action underway**
Land clearing	More accurately ascertain the distribution of the species on freehold land adjacent to Beeron NP.

	Undertake extension activities to engage relevant landholders in the protection of the species. Strengthen vegetation protection legislation to reduce incentives to clear vegetation. Incorporate remnant vegetation surrounding Beeron NP into the national park. Incorporate the species into management plans for Allies Creek State Forest and Beeron National Park. Ensure contractors are aware of the species' occurrence when undertaking timber harvesting activities. Define a protection buffer around the individuals at Allies Creek State Forest to protect from direct and indirect impacts of timber harvesting.
Future threats – potential	**Abatement or recovery action underway**
Small population – stochastic events	No recovery actions currently address this threat.
Climate change	No recovery actions currently address this threat.
Future threats – potential	**Abatement or recovery action underway**
Small population – stochastic events	Collect and store seed of *E. broviniensis* representing maximum range of genetic diversity possible (or feasible) for long-term conservation. Protect the subpopulation of *E. broviniensis* in Allies Creek SF in national park. Protect the portion of the eastern subpopulation that occurs on freehold land in national park or other conservation agreements. Undertake targeted surveys to better understand the distribution of the species, especially on freehold tenure. Undertake research to better understand the impact of recovery actions and threatening processes on the species' population. Ensure individuals on neighbouring private property are protected from habitat degradation and clearing via liaison with relevant stakeholders. Undertake research to better understand the conservation biology (genetic diversity) and ecology (fire ecology, pollination, habitat requirements, germination requirements, recruitment rates) of the species to inform targeted conservation actions.
Climate change	Undertake targeted surveys to better understand population distribution and size, especially the number of mature individuals in each subpopulation. Establish a monitoring protocol so that time-series trends can be captured to better understand population demographics in relation to climate change. Undertake research to better understand the biology and ecology of the species so that potential climate change impacts can be better anticipated. For example, pollination, germination cues, fire ecology and dispersal mechanisms. Undertake research to better understand potential climate change impacts, such as monitoring projected impacts of more frequent extreme fire weather in the species habitat. Establish an *ex situ* population via seed banking or propagation representing the maximum range of genetic diversity possible.

Listing class/category

CURRENT LISTING CLASS/CATEGORY

[Please mark the boxes that apply by double clicking them with your mouse.]

In what class is the species currently listed under the **NC Act**?

☐Extinct	☐Extinct in the Wild	☐Critically Endangered	☒Endangered
☐Vulnerable	☐Near Threatened	☐Least Concern	☐Not listed

In what category is the species currently listed under the **EPBC Act**?

☐Extinct	☐Extinct in the Wild	☐Critically Endangered	☐Endangered
☐Vulnerable	☐Conservation Dependent		☒Not listed

NOMINATED LISTING CLASS

To what class under the **NC Act** is the species being nominated?

☐Extinct	☐Extinct in the Wild	☐Critically Endangered	☒Endangered
☐Vulnerable	☐Near Threatened	☐Least Concern	☐Not listed

Nominating a species to transfer to another class

REASON FOR A NOMINATION TO TRANSFER TO ANOTHER CLASS

What is the reason for the nomination?

☐Genuine change of status	☐New knowledge	☐Mistake	☒Other
Taxonomic change - ☐'split'	☐newly described	☐'lumped'	☐no longer valid

INITIAL LISTING

Describe the reasons for the species' initial listing under the NC Act and/or the EPBC Act and, if available, the criteria under which it was formerly considered eligible.

There is no documentation available that describes the reasons for the species' initial listing under the NC Act.

A status of Critically Endangered under Criteria B1+2, C2 and D was proposed in the description of the species due to the small population size and threat of too-frequent fire (Bean 2001). The species was only known from 20 mature individuals at the time of this listing. Increased-fire frequency was proposed as a threat due to the associated death of a number of mature stems in recent years (Bean 2001).

CHANGES IN SITUATION LEADING TO THE NOMINATION TO TRANSFER TO ANOTHER CLASS

Please complete (a), (b) OR (c) as appropriate to the nomination.

(a) Critically Endangered, Endangered, Vulnerable or Near Threatened

Describe the change in circumstances that make the species eligible for listing in a class other than Extinct and Extinct in the Wild.

Click or tap here to enter text.

(b) Extinct in the Wild

A native species is eligible to be included in the Extinct in the Wild class if: (a) thorough searches have been conducted for the species; and (b) the species has not been seen in the wild over a period appropriate for its life cycle or form. The species may still survive in cultivation, captivity or as a naturalised population (or populations) well outside the historic range.

Describe how circumstances have changed that now make the species eligible for listing as Extinct in the Wild. Provide details of the last valid record or observation of the species in the wild.

Click or tap here to enter text.

(c) Extinct

A native species is eligible to be included in the Extinct class if there is no reasonable doubt that the last member of the species has died. A taxon is presumed Extinct when exhaustive surveys in the known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual.

Describe how circumstances have changed that now make the species eligible for listing as Extinct. Provide details of the last valid record or observation for the species in the wild and captivity.

Click or tap here to enter text.

Standard of scientific evidence and adequacy of survey

Please complete as appropriate to the nomination

For this assessment it is considered that the survey of the species has been adequate and there is sufficient scientific evidence to support the listing outcome.

Eligibility against the criteria

CRITERION A

Population size reduction (reduction in total numbers) measured over the longer of 10 years or 3 generations based on any of A1 to A4

	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Near Threatened (NT)
A1	**≥ 90%**	**≥ 70%**	**≥ 50%**	**≥ 20%**
A2, A3, A4	**≥ 80%**	**≥ 50%**	**≥ 30%**	**≥ 20%**

A1 Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.

A2 Population reduction observed, estimated, inferred or suspected in the past where the causes of the reduction may not have ceased OR may not be understood OR may not be reversible.

A3 Population reduction, projected or suspected to be met in the future (up to a maximum of 100 years) [(*a) cannot be used for A3*]

A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.

based on any of (a) to (e)

(a) direct observation [*except A3*]

(b) an index of abundance appropriate to the taxon

(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat

(d) actual or potential levels of exploitation

(e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites

Please identify whether the species meets A1, A2, A3 or A4. Include an explanation, supported by data and information, on how the species meets the criterion (A1 – A4). If available include information on:

- whether the population trend is increasing, decreasing or static
- estimated generation length and method used to estimate the generation length

You must provide a response. If there is no evidence to demonstrate a population size reduction, this must be stated.

***Eucalyptus broviniensis* is assessed as Data Deficient under Criterion A.**

Population decline (past and future) relative to generation length is unknown.

The generation length of *E. broviniensis* has been arbitrarily estimated as 70 years (Fensham et al. 2020).

Population decline has occurred in the species distribution in the past due to land clearing, which is ongoing in the eastern subpopulation of the species. However, the extent of this has not been quantified for the species.

CRITERION B:

Geographic distribution is precarious for either extent of occurrence AND/OR area of occupancy				
	Critically Endangered (CR)	**Endangered (EN)**	**Vulnerable (VU)**	**Near Threatened (NT)**
B1. Extent of occurrence (EOO)	**< 100 km²**	**< 5,000 km²**	**< 20,000 km²**	**< 40,000 km²**
B2. Area of occupancy (AOO)	**< 10 km²**	**< 500 km²**	**< 2,000 km²**	**< 4,000 km²**
AND at least 2 of the following 3 conditions for CR, EN or VU:				AND (b) for NT
(a) Severely fragmented OR Number of locations	**= 1**	**≤ 5**	**≤ 10**	**Not applicable**
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals				**≥ 10% within the longer of 10 years or 3 generations**
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals				**Not applicable**

Please refer to the 'Guidelines for Using the IUCN Red List Categories and Criteria' for assistance with interpreting the criterion particularly in relation to calculating 'extent of occurrence', 'area of occupancy' and understanding of the definition and use of 'severely fragmented', 'locations', 'continuing decline' and 'extreme fluctuations'.

Please identify whether the species meets B1 or B2. Except for Near Threatened species, include an explanation, supported by data and information, on how the species meets at least 2 of (a), (b) or (c). For Near Threatened species, include an explanation, supported by data and information, on how the species meets (b).

Please note that locations must be defined by a threat. A location is a geographically or ecologically distinct area in which a single threatening event can rapidly affect all individuals of the species present.

If available, include information on:

- Whether there are smaller populations of the species within the total population and, if so, the degree of geographic separation between the smaller populations within the total population
- Any biological, geographic, human induced or other barriers enforcing separation

You must provide a response. If there is no evidence to demonstrate that the geographic distribution is precarious for either extent of occurrence AND/OR area of occupancy, this must be stated.

***Eucalyptus broviniensis* meets the thresholds for listing as Endangered under Criterion B1+2ab(i-iv)**

This species has an EOO of 23.3 km^2 and an AOO of 16 km^2.

Past decline is inferred based on timber harvesting activities and land clearing in the habitat of the species. Ongoing/future decline is projected given the current land clearing in the eastern subpopulation of the species and the declining health of the western subpopulation. Given the very small size of the western subpopulation (20 mature individuals), the loss of this subpopulation would correspond to a decline in the AOO, EOO and number of locations/subpopulations.

When assessed against the serious potential threats, the species occurs at three locations. All individuals at the eastern subpopulation are severely impacted by increasing fire frequency, and therefore occur at a single location. The individuals that occur in Beeron NP and adjacent private property are also impacted by increasing fire frequency and occur within close enough proximity that they could be impacted by a wildfire simultaneously. However, occurring on different land tenures may confer different management strategies and thus impacts in relation to fire, therefore they are assessed as separate (two) locations. Furthermore, the individuals on private property are threatened by land clearing, while those in Beeron NP are not. This further supports the delineation of two locations for the eastern subpopulation. Combined with the location in the western subpopulation, the species occurs at three locations.

The species occurs in relatively contiguous habitat therefore is not considered severely fragmented. The species is a long-lived eucalypt that can re-sprout and therefore does not undergo severe fluctuations.

CRITERION C

Small population size and decline					
		Critically Endangered (CR)	**Endangered (EN)**	**Vulnerable (VU)**	**Near Threatened (NT)**
Estimated number of mature individuals		**< 250**	**< 2,500**	**< 10,000**	**< 20,000**
AND either (C1) or (C2) is true					AND (C1) is true
C1 An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in the future		**25% in 3 years or 1 generation (whichever is longer)**	**20% in 5 years or 2 generations (whichever is longer)**	**10% in 10 years or 3 generations (whichever is longer)**	**10% in 10 years or 3 generations (whichever is longer)**
C2 An observed, estimated, projected or inferred continuing decline AND its geographic distribution is precarious for its survival based on at least 1 of (a) or (b):					
(a)	(i) Number of mature individuals in each subpopulation	**≤ 50**	**≤ 250**	**≤ 1,000**	**Not applicable**
	OR				
	(ii) % of mature individuals in one subpopulation =	**90 – 100%**	**95 – 100%**	**100%**	**Not applicable**
(b) Extreme fluctuations in the number of mature individuals		**Applicable**	**Applicable**	**Applicable**	**Not applicable**

Please identify the estimated total number of mature individuals and either an answer to C1 or C2. Include an explanation, supported by data and information, on how the species meets the criteria. Note: If the estimated total number of mature individuals is unknown but presumed to be likely to be >10 000, you are not required to provide evidence in support of C1 or C2, just state that the number is likely to be >10 000.

You must provide a response. If there is no evidence to demonstrate small population size and decline this must be stated.

***Eucalyptus broviniensis* meets the thresholds for listing as Endangered under Criterion C2a(ii).**

The population of *E. broviniensis* is estimated as 1000-3000 mature individuals.

The number of mature individuals in the largest subpopulation is estimated to be 1000-3000 mature individuals (only 20 mature individuals occur in the western subpopulation).

Continuing decline is projected given land clearing occurring in the eastern part of the species range and the decline in health of the western subpopulation.

98% of mature individuals occur in one subpopulation.

The species is a long-lived eucalypt that can re-sprout and therefore does not undergo extreme fluctuations.

CRITERION D:

Very small population				
	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Near Threatened (NT)
D1. Number of mature individuals	< 50	< 250	D1. < 1,000	D1. < 3,000
OR				
D2. [Only applies to the VU and NT categories] Restricted area of occupancy or number of locations with a plausible future threat that could drive the taxon to CR or EX in a very short time.	Not applicable	Not applicable	D2. Typically: AOO < 20 km^2 or number of locations ≤ 5	D2. Typically: AOO < 40 km^2 or number of locations ≤ 10

Please identify the estimated total number of mature individuals and evidence of how the figure was derived.

For Criterion D2, please provide information on the species' area of occupancy, number of locations and plausible threats.

You must provide a response. If there is no evidence to demonstrate eligibility, this must be stated.

***Eucalyptus broviniensis* meets the thresholds for listing as Near Threatened under Criteria D1+D2.**

The population of *E. broviniensis* is estimated at 1000-3000 mature individuals.

The AOO of this species is <40.0 km^2.

When assessed against the serious potential threats, the species occurs at three locations. All individuals at the eastern subpopulation are severely impacted by increasing fire frequency, and therefore occur at a single location. The individuals that occur in Beeron NP and adjacent private property are also impacted by increasing fire frequency and occur within close enough proximity that they could be impacted by a wildfire simultaneously. However, occurring on different land tenures may confer different management strategies and thus impacts in relation to fire, therefore they are assessed as separate (two) locations. Furthermore, the individuals on private property are threatened by land clearing, while those in Beeron NP are not. This further supports the delineation of two locations for the eastern subpopulation. Combined with the location in the western subpopulation, the species occurs at three locations.

Eucalyptus broviniensis meets the population size requirements for Near Threatened under Criterion D1.

The species meets the location thresholds for VU under D2. Although there are current threatening processes (see Threats), these would not plausibly drive the species to CR or EX in a very short period of time. It is unlikely the population would be reduced to a single location (CR under Criteria B requires one location). The loss of the western subpopulation would reduce the number of locations to two, while the threatening process affecting the eastern subpopulation (land clearing) is gradual but cumulative (IUCN 2019). The species is therefore assessed as NT under D2.

CRITERION E:

Quantitative Analysis				
	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Near Threatened (NT)
Indicating the probability of extinction in the wild to be:	≥ 50% in 10 years or 3 generations, whichever is longer (100 years max.)	≥ 20% in 20 years or 5 generations, whichever is longer (100 years max.)	≥ 10% within 100 years	≥ 5% within 100 years

Please identify the probability of extinction and evidence of how the analysis was undertaken.

You must provide a response. If there has been no quantitative analysis undertaken this must be stated.

Data Deficient.

No quantitative analysis has been undertaken.

SUMMARY OF CRITERIA UNDER WHICH THE SPECIES IS ELIGIBLE FOR LISTING AS: CR, EN, V, NT, EW or EX

Please mark the criteria and sub-criteria that apply.

☐Criterion A **Data Deficient**	☐A1 (specify at least one of the following) ☐a) ☐b) ☐c) ☐ d) ☐e); **AND/OR** ☐A2 (specify at least one of the following) ☐a) ☐b) ☐c) ☐d) ☐e); **AND/OR** ☐A3 (specify at least one of the following) ☐a) ☐b) ☐c) ☐d) ☐e); **AND/OR** ☐A4 (specify at least one of the following) ☐a) ☐b) ☐c) ☐d) ☐e)
☒Criterion B **Endangered**	☒B1 (specify at least two of the following) ☒a) ☒b) ☐c); **AND/OR** ☒B2 (specify at least two of the following, other than NT) ☒a) ☒b) ☐c)
☒Criterion C **Endangered**	☐estimated number of mature individuals **AND** ☐C1 **OR** ☒C2 ☐a (i) **OR** ☒a (ii) **OR** ☐C2 ☐b)
☒Criterion D **Near Threatened**	☒D1 **OR** ☒ D2
☐Criterion E **Data Deficient**	
☐EX	
☐EW	
☐LC	Species nominated to change from a higher conservation class to Least Concern. No above boxes apply.

Other Considerations

*INDIGENOUS CULTURAL SIGNIFICANCE

Is the species known to have cultural significance for Indigenous groups within Australia? If so, to which groups? Provide information on the nature of this significance if publicly available.

The cultural, customary and spiritual significance of species and the ecological communities they form are diverse and varied for Indigenous Australians and their stewardship of Country. This section describes some examples of this significance but is not intended to be comprehensive or applicable to, or speak for, Indigenous Australians. Such knowledge may be held by Indigenous Australians who are the custodians of this knowledge and have the rights to decide how this knowledge is shared and used.

Eucalyptus broviniensis is known from occurrences on the lands of the Barunggam/Auburn-Hawkwood People (whilst acknowledging that other peoples may have a connection to the Country). There is little published information on how the Barunggam/Auburn-Hawkwood People relate to Country in this region and what that may mean for the cultural significance of *E. broviniensis*.

FURTHER STUDIES

Identify relevant studies or management documentation that might relate to the species (e.g. research projects, national park management plans, recovery plans, conservation plans, threat abatement plans, etc.).

See the management plan for Beeron National Park (DNPRSR 2013).

ADDITIONAL COMMENTS/INFORMATION

Please include any additional comments or information on the species such as survey or monitoring information, and maps that would assist with the consideration of the nomination.

Click or tap here to enter text.

IMAGES OF THE SPECIES

Please include or attach images of the species if available, and indicate if you are in a position to authorise their use.

Coppice growth of *Eucalyptus broviniensis* (1.5 years after fire) on the margins of heath at Allies Creek State Forest. Image credit: Peter Young.

Eucalyptus broviniensis growing amongst mixed open woodland at Beeron National Park. Image credit: Peter Young.

Reviewers and references

REVIEWER(S)

Has this nomination been peer-reviewed? Have relevant experts been consulted on this nomination? If so, please include their names, current professional positions and contact details.

Tony Bean, Senior Botanist, Queensland Herbarium, Department of Environment and Science.
Peter Young, Independent expert
Jason Halford, Senior Botanist, Queensland Herbarium, Department of Environment and Science.

REFERENCE LIST

Please list key references/documentation you have referred to in your nomination.

Bean, A. (2001). Eucalyptus broviniensis (Myrtaceae), a new critically endangered species from south-eastern Queensland. *Austrobaileya 6*(1), 117-119.

Department of the Environment (2012). *Interim biogeographic regionalisation for Australia (regions – states and territories) v. 7 (IBRA).* Commonwealth of Australia. Canberra. Available at https://www.environment.gov.au/land/nrs/science/ibra#ibra.

Department of National Parks, Recreation, Sport and Racing. (2013). *Beeron National Park Management Statement 2013.* Department of National Parks, Recreation, Sport and Racing, Queensland. Available at https://parks.des.qld.gov.au/managing/plans-strategies/statements/pdf/beeron.pdf.

Dowdy, A., Abbs, D., Bhend, J., Chiew, F., Church, J., Ekström, M., Kirono, D., Lenton, A., Lucas, C., McInnis, K., Moise, A., Monselesan, D., Mpelasoka, F., Webb, L. & Whetton, P. (2015). *East Coast Cluster Report. Climate Change in Australia Projections for Australia's Natural Resource Management Regions: Cluster Reports*. CSIRO and Bureau of Meterology: Australia.

Hoffmann, A.A., Rymer, P.D., Byrne, M., Ruthrof, K.X., Whinam, J., McGeoch, M., Bergstrom, D.M., Guerin, G.R., Sparrow, B., Joseph, L, Hill, S.J
., Andrew, N.R. Camac, J., Bell, N., Riegler, M., Gardner, J.L. & Williams, S.E. (2019). Impacts of recent climate change on terrestrial flora and fauna: some emerging Australian examples. *Austral Ecology* 44: 3–27.

Fensham, R., Laffineur, B. & Collingwood, T. 2019. *Eucalyptus broviniensis*. *The IUCN Red List of Threatened Species* 2019: e.T133374928A133374930. https://dx.doi.org/10.2305/IUCN.UK.2019-3.RLTS.T133374928A133374930.en. Downloaded on 09 March 2020.

Fensham, R. J., Laffineur, B. and Collingwood, T. D. (2020). Rarity or decline: key concepts for the Red List of Australian eucalypts. *Biological Conservation.* **243**(108455).

IUCN Standards and Petitions Committee (2019). Guidelines for Using the IUCN Red List Categories and Criteria. Version 14. Prepared by the Standards and Petitions Committee. http://www.iucnredlist.org/documents/RedListGuidelines.pdf.

Queensland Herbarium (2020) Herbarium records for *Eucalyptus broviniensis*, Department of Environment and Science, Queensland, viewed 21 November 2019.

Nominator's Details

Note: Your details are subject to the provisions of the *Privacy Act 1988* and will not be divulged to third parties, except for state and territory governments and scientific committees that have agreed to collaborate on national threatened species assessments using a CAM. If there are multiple nominators please include details below for all nominators.

TITLE (e.g. Mr/Mrs/Dr/Professor/etc.)

Ms

FULL NAME

Teghan D. Collingwood

ORGANISATION OR COMPANY NAME (IF APPLICABLE)

School of Biological Sciences, University of Queensland
Queensland Herbarium, Department of Environment and Science

CONTACT DETAILS

DECLARATION

I declare that, to the best of my knowledge, the information in this nomination and its attachments is true and correct.

Signed: Click here to enter text. ** If submitting by email, please attach an electronic signature*	Date: 5/03/2020

Lodging your nomination

Completed nominations may be lodged either:
1. by email in Microsoft Word format to: SpeciesTechnical.Committee@des.qld.gov.au
2. by mail to: The Chair
   Species Technical Committee
   Queensland Herbarium
   Mount Coot-tha Rd
   Toowong QLD 4066

*** If submitting by mail, you must include an electronic copy on a memory stick.**

Suggested citation:

Collingwood, T. D. (2020). Nomination to change the conservation class of *Eucalyptus broviniensis* under the Queensland Nature Conservation Act 1992. Department of Environment and Science, Brisbane.